

SDI Plummer Block Housings

The innovation of SD housings



HFB – Technology in motion.



SDI Plummer Block Housings – Efficient & Economical



The new SDI plummer block housings of HFB are the consequent further development of the SD housings proven for decades and are particularly suitable for the use of extreme load bearings.

HFB manufactures SDI plummer block housings according to highest quality expectations. Such housings are characterised by a robust construction and high level of efficiency. They meet the continuously increasing demands of different industries in a special way.

The innovative design of SDI housings

- The combination of optimised materials with improved housing structure results in a higher level of stiffness tolerating higher loads. Therefore, the new housings meet the continuously increasing demands, reduce possible deformation of housings and bearings and extend the life of the bearing.
- The optimised force application in the installation surface as well as the improved heat removal base on the constructional redesign and the resulting enhanced geometry of the housing base. Therefore, low operating temperatures increase the lifetime of the bearings and seals as well as the working life of grease.
- Easy to install markings of the bearings and the centre of the housing facilitate on-site assembly. Precise positioning of the bearing reduces vibrations and therefore prevents high heat generation with the effect of extended life of bearing and grease.
- For the realisation of an application-related distribution of grease, the new housings are equipped with marks for centre for the sealing area as well as an application-oriented bearing lubrication. Oil lubrication can be realised as well on request. Additional bags allow a connection of both bearing sides which guarantees a uniform oil level. An optional oil sight gauge prevents over-filling.
- Vibrations and temperature sensors also can be easily installed at a later time due to the new marks for centre.
- A pinhole at the housing foot (also on both sides) at the marked spot can be additionally ordered or bored during assembly. This is for the exact positioning by means of a pin arranged during assembly and the force absorption in clamping surface directions.
- An additional modification of the housings permits the mounting of heating elements.



For Global Demanding Applications

SDI plummer block housings are predestined for the use under high loads due to the high stability and the resulting high level of safety.

Typical fields of operation are among other things:

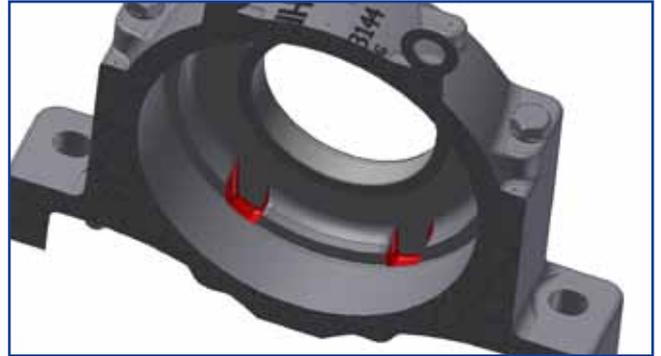
- Conveying technology
- Materials handling
- Mining industry
- Recycling technology



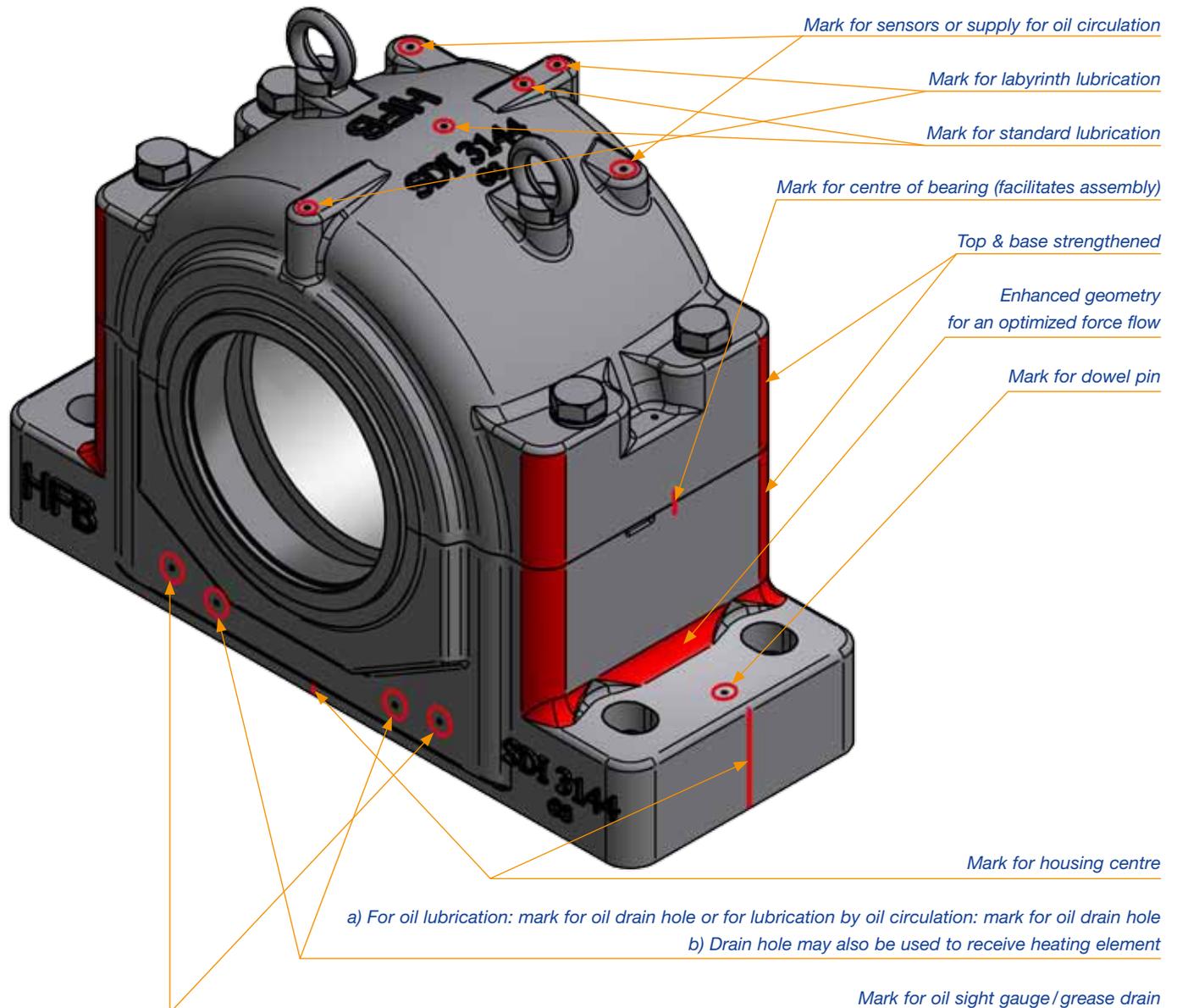
SDI Features and Product Innovations



Revised, enhanced geometry inside the foot



Additional bags allow a connection of both bearing sides with oil lubrication

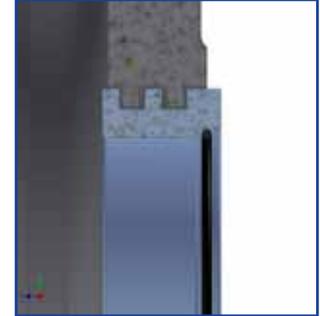


The Best Seal for Each Application

HFB offers suitable seals for various applications. According to the requirements concerning the bearings, a seal has to be selected that guarantees the proper function of the bearing and optimises the working life of the bearing. All seals have one thing in common: They retain the grease in the bearing and prevent the penetration of impurities into the bearing.

TS Seals

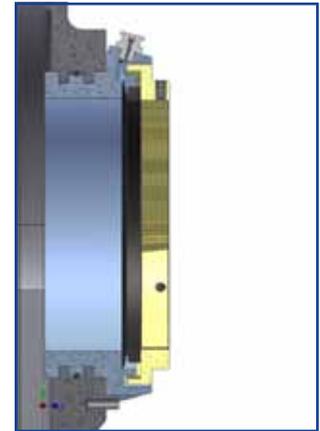
The TS seal (non-contact labyrinth seal) is the most common seal of HFB and universally usable. Included Perbunan round cords are inserted between shaft and labyrinth ring and make sure that the rings are rotating with the shaft. Tilting of the shaft against the housing are permitted up to 0.3° . In the event of permanent temperatures exceeding 100°C , a round cord made of a suitable, heat-resistant material must be inserted. When relubricating, it should be lubricated over the bearing centre, if possible. Optionally, bore holes for direct labyrinth lubrication can be provided.



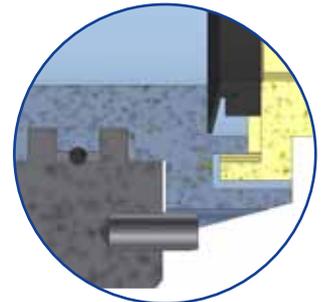
TS Seal

TACONITE Seals

The TACONITE seal (TAC) is the most effective sealing against water, sludge and rough impurities. It was designed for application fields with extremely rough operating conditions like e.g. mining operations and stone machining. In addition, it keeps away finest particles from the spherical roller bearing. A stationary ring is mounted in the housing with an O-ring. An axial labyrinth ring mounted on the shaft engages with it. A V-ring sealing against the stationary ring prevents the penetration of dirt into the housing. Lubrication of the seal takes place via lubricating nipples in the stationary seal ring. This seal is usable in the HFB standard housings without any additional modification. Axial tilting of the shaft is possible up to 0.3° . Working temperatures of -40°C to $+100^\circ\text{C}$ are permissible. In addition, special materials have to be chosen for the O-ring and V-ring. The axial relocatability of the shaft against the housing is restricted with the TACONITE seal. Our seals are manufactured for the use of a torsional reliability against the housing by default. On client's request, HFB can modify the housings accordingly (suffix VDS).



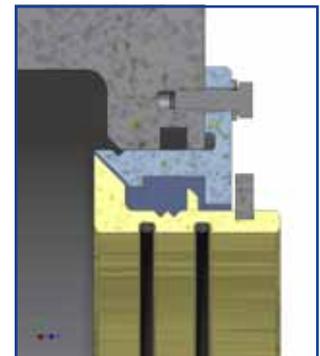
TAC VDS Seal



TS and TACONITE seals are also available in split execution.

TST Oil seals

The use of oil lubrication requires special seals. Such must prevent oil leakage. The TST oil seal – a non-contact labyrinth seal – is ideally suitable. The labyrinth ring is locked on the shaft by means of inserted O-rings. Such prevent leakage between shaft and labyrinth ring. In addition, the seal is designed to return oil. Such seals do not restrict the axial movement of the shaft against the housing. The shafts are usually manufactured with the tolerance h9. In order to mount a TST oil seal, the SDI housings require special processing.

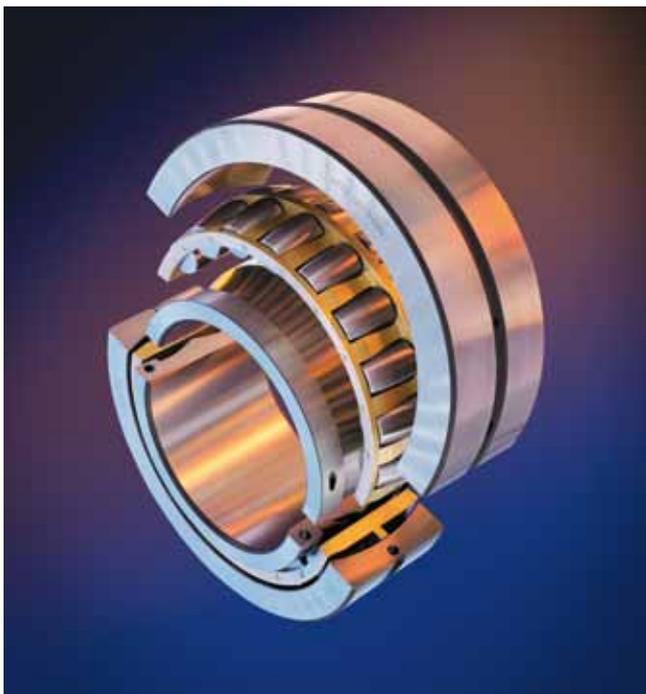


TST Oil seal

Extensive Product Range

Following types of bearings can be used with SDI Plummer Block Housings:

- Spherical roller bearing, series 230, 231, 232, 222, 223 and 240 with cylindrical boring and adapter mounted
- Split spherical roller bearings, series SPLT (details on request)



Delivery programme SDI Plummer Block Housings

- SDI 3036 to SDI 30/530
- SDI 3134 to SDI 3196
- SDI 3234 to SDI 3288
- SDI 2232 to SDI 2272
- SDI 2326 to SDI 2356
- SDI 4076 to SDI 40/530

Materials

Both alternative materials are available for the SDI housings: Grey cast iron and spheroidal graphite iron.

Spheroidal graphite iron of HFB impresses by its significant features and is frequently suitable as a replacement for steel casting therefore.

Advantages of spheroidal graphite iron

- Defined notched bar impact work at -20 °C according to standard
- Increased operational safety under extreme conditions
- Improved elongation at break
- Resistant to impact load

Breaking loads of SDI Plummer Block Housings

Material grey cast iron

Housing size	Breaking loads (kN)							Pa
	P0°	P55°	P90°	P120°	P150°	P180°		
SDI 3036	1950	2410	1150	870	780	980	630	
SDI 3038	2180	2760	1320	980	870	1090	710	
SDI 3040	2530	3100	1490	1150	1010	1260	820	
SDI 3044	2990	3680	1840	1260	1150	1490	970	
SDI 3048	3560	4600	2180	1610	1490	1840	1150	
SDI 3052	3910	4830	2300	1720	1610	1950	1260	
SDI 3056	4370	5400	2640	1950	1720	2180	1380	
SDI 3060	4600	5750	2760	2070	1840	2300	1490	
SDI 3064	5520	6900	3330	2530	2180	2760	1720	
SDI 3068	6210	8050	3910	2870	2530	3220	2070	
SDI 3072	6210	8050	3910	2870	2530	3220	2070	
SDI 3076	6900	8620	4140	2990	2640	3450	2180	
SDI 3080	6900	8850	4140	3100	2760	3450	2300	
SDI 3084	7010	9200	4480	3330	2870	3680	2410	
SDI 3088	8050	10000	4830	3560	3100	4020	2530	
SDI 3092	8740	11040	5290	3910	3450	4370	2760	
SDI 3096	8740	11040	5290	3910	3450	4370	2760	
SDI 30/500	9200	11500	5520	4140	3560	4600	2870	
SDI 30/530	10120	12880	6210	4600	4020	5060	3220	
SDI 3134	1950	2410	1150	870	780	980	630	
SDI 3136	2180	2760	1320	980	870	1090	710	
SDI 3138	2530	3100	1490	1150	1010	1260	820	
SDI 3140	2990	3680	1840	1260	1150	1490	970	
SDI 3144	3560	4600	2180	1610	1490	1840	1150	
SDI 3148	3910	4830	2300	1720	1610	1950	1260	
SDI 3152	4370	5400	2640	1950	1720	2180	1380	
SDI 3156	4600	5750	2760	2070	1840	2300	1490	
SDI 3160	5520	6900	3330	2530	2180	2760	1720	
SDI 3164	6210	8050	3910	2870	2530	3220	2070	
SDI 3168	6900	8620	4140	2990	2640	3450	2180	
SDI 3172	6900	8850	4140	3100	2760	3450	2300	
SDI 3176	7010	9200	4480	3330	2870	3680	2410	
SDI 3180	8050	10000	4830	3560	3100	4020	2530	
SDI 3184	8740	11040	5290	3910	3450	4370	2760	
SDI 3188	9200	11500	5520	4140	3560	4600	2870	
SDI 3192	9660	12300	5980	4370	3790	4830	3100	
SDI 3196	10120	12880	6210	4600	4020	5060	3220	
SDI 3234	2530	3100	1490	1150	1010	1260	820	
SDI 3236	2530	3100	1490	1150	1010	1260	820	
SDI 3238	2990	3680	1840	1260	1150	1490	970	
SDI 3240	3560	4600	2180	1610	1490	1840	1150	
SDI 3244	3910	4830	2300	1720	1610	1950	1260	
SDI 3248	4370	5400	2640	1950	1720	2180	1380	
SDI 3252	5520	6900	3330	2530	2180	2760	1320	
SDI 3256	5520	6900	3330	2530	2180	2760	1380	
SDI 3260	6210	8050	3910	2870	2530	3220	1840	
SDI 3264	6900	8620	4140	2990	2640	3450	1670	
SDI 3268	7010	9200	4480	3330	2870	3680	2130	
SDI 3272	8050	10000	4830	3560	3100	4020	1840	
SDI 3276	8740	11040	5290	3910	3450	4370	2410	
SDI 3280	9200	11500	5520	4140	3560	4600	2760	
SDI 3284	9660	12300	5980	4370	3790	4830	2990	
SDI 3288	10120	12880	6210	4600	4020	5060	3100	
SDI 2232	2180	2760	1320	980	870	1090	710	
SDI 2234	2530	3100	1490	1150	1010	1260	820	
SDI 2236	2530	3100	1490	1150	1010	1260	820	
SDI 2238	2990	3680	1840	1260	1150	1490	970	
SDI 2240	3560	4600	2180	1610	1490	1840	1150	
SDI 2244	3910	4830	2300	1720	1610	1950	1260	
SDI 2248	4370	5400	2640	1950	1720	2180	1380	
SDI 2252	5520	6900	3330	2530	2180	2760	1720	
SDI 2256	5520	6900	3330	2530	2180	2760	1720	
SDI 2260	6210	8050	3910	2870	2530	3220	2070	
SDI 2264	6900	8620	4140	2990	2640	3450	2180	
SDI 2272	8050	10000	4830	3560	3100	4020	2530	
SDI 2326	1950	2410	1150	870	780	980	630	
SDI 2328	2180	2760	1320	980	870	1090	710	
SDI 2330	2530	3100	1490	1150	1010	1260	820	
SDI 2332	2990	3680	1840	1260	1150	1490	970	
SDI 2334	3560	4600	2180	1610	1490	1840	1150	
SDI 2338	3910	4830	2300	1720	1610	1950	1260	
SDI 2340	4370	5400	2640	1950	1720	2180	1380	
SDI 2344	4600	5750	2760	2070	1840	2300	1490	
SDI 2352	6210	8050	3910	2870	2530	3220	2070	
SDI 2356	6900	8620	4140	2990	2640	3450	2180	
SDI 4076	6900	8620	4140	2990	2640	3450	2180	
SDI 4080	6900	8850	4140	3100	2760	3450	2300	
SDI 4084	7010	9200	4480	3330	2870	3680	2410	
SDI 4088	8050	10000	4830	3560	3100	4020	2530	
SDI 4092	8740	11040	5290	3910	3450	4370	2760	
SDI 4096	9200	11500	5520	4140	3560	4600	2870	
SDI 40/500	9660	12300	5980	4370	3790	4830	3100	
SDI 40/530	10120	12880	6210	4600	4020	5060	3220	

Material spheroidal graphite iron

Housing size	Breaking loads (kN)							Pa
	P0°	P55°	P90°	P120°	P150°	P180°		
SDI 3036	3510	4340	2070	1570	1400	1760	1130	
SDI 3038	3920	4970	2380	1760	1570	1960	1280	
SDI 3040	4550	5580	2680	2070	1820	2270	1480	
SDI 3044	5380	6620	3310	2270	2070	2680	1750	
SDI 3048	6410	8280	3920	2900	2680	3310	2070	
SDI 3052	7040	8690	4140	3100	2900	3510	2270	
SDI 3056	7870	9720	4750	3510	3100	3920	2480	
SDI 3060	8280	10350	4970	3730	3310	4140	2680	
SDI 3064	9940	12420	5990	4550	3920	4970	3100	
SDI 3068	11180	14490	7040	5170	4550	5800	3730	
SDI 3072	11180	14490	7040	5170	4550	5800	3730	
SDI 3076	12420	15520	7450	5380	4750	6210	3920	
SDI 3080	12420	15930	7450	5580	4970	6210	4140	
SDI 3084	12620	16560	8060	5990	5170	6620	4340	
SDI 3088	14490	18000	8690	6410	5580	7240	4550	
SDI 3092	15730	19870	9520	7040	6210	7870	4970	
SDI 3096	15730	19870	9520	7040	6210	7870	4970	
SDI 30/500	16560	20700	9940	7450	6410	8280	5170	
SDI 30/530	18220	23180	11180	8280	7240	9110	5800	
SDI 3134	3510	4340	2070	1570	1400	1760	1130	
SDI 3136	3920	4970	2380	1760	1570	1960	1280	
SDI 3138	4550	5580	2680	2070	1820	2270	1480	
SDI 3140	5380	6620	3310	2270	2070	2680	1750	
SDI 3144	6410	8280	3920	2900	2680	3310	2070	
SDI 3148	7040	8690	4140	3100	2900	3510	2270	
SDI 3152	7870	9720	4750	3510	3100	3920	2480	
SDI 3156	8280	10350	4970	3730	3310	4140	2680	
SDI 3160	9940	12420	5990	4550	3920	4970	3100	
SDI 3164	11180	14490	7040	5170	4550	5800	3730	
SDI 3168	12420	15520	7450	5380	4750	6210	3920	
SDI 3172	12420	15930	7450	5580	4970	6210	4140	
SDI 3176	12620	16560	8060	5990	5170	6620	4340	
SDI 3180	14490	18000	8690	6410	5580	7240	4550	
SDI 3184	15730	19870	9520	7040	6210	7870	4970	
SDI 3188	16560	20700	9940	7450	6410	8280	5170	
SDI 3192	17390	22140	10760	7870	6820	8690	5580	
SDI 3196	18220	23180	11180	8280	7240	9110	5800	
SDI 3234	4550	5580	2680	2070	1820	2270	1480	
SDI 3236	4550	5580	2680	2070	1820	2270	1480	
SDI 3238	5380	6620	3310	2270	2070	2680	1750	
SDI 3240	6410	8280	3920	2900	2680	3310	2070	
SDI 3244	7040	8690	4140	3100	2900	3510	2270	
SDI 3248	7870	9720	4750	3510	3100	3920	2480	
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SDI 3256	9940	12420	5990	4550	3920	4970	2480	
SDI 3260	11180	14490	7040	5170	4550	5800	3310	
SDI 3264	12420	15520	7450	5380	4750	6210	3010	
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SDI 3284	17390	22140	10760	7870	6820	8690	5380	
SDI 3288	18220	23180	11180	8280	7240	9110	5580	
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SDI 2234	4550	5580	2680	2070	1820	2270	1480	
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SDI 2240	6410	8280	3920	2900	2680	3310	2070	
SDI 2244	7040	8690	4140	3100	2900	3510	2270	
SDI 2248	7870	9720	4750	3510	3100	3920	2480	
SDI 2252	9940	12420	5990	4550	3920	4970	3100	
SDI 2256	9940	12420	5990	4550	3920	4970	3100	
SDI 2260	11180	14490	7040	5170	4550	5800	3730	
SDI 2264	12420	15520	7450	5380	4750	6210	3920	
SDI 2272	14490	18000	8690	6410	5580	7240	4550	
SDI 2326								

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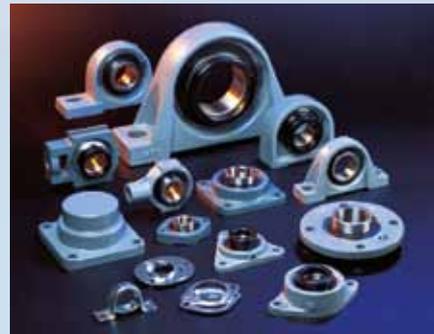
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Extract of HFB's product range



Plummer block and take-up units for conveyor systems of all sizes



Ball bearing housing units for shaft diameters 12-120 mm



Oil and grease lubricated housings for fan and air-conditioning industry



Split plummer block housings made from grey cast iron, ductile iron and cast steel



Grease lubricated plain bearings with bronze bushes



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